Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method comprising:

storing routing information mapping destinations to routes within a network;

storing a set of routing rules;

receiving a network communication comprising destination information and patient data;

comparing at least a portion of the patient data to the set of routing rules;

selecting a route from the routing information based on the destination information of the network communication and a result of the comparison; and

forwarding the network communication according to the selected route.

2. (Currently Amended) The method of claim 1, wherein the network comprises a medical imaging network and the network communication complies with the [[DICOM]] Digital Imaging and Communication in Medicine protocol, and further wherein storing routing information comprises storing routing information mapping Application Entity Names (AENames) to routes within the medical imaging network.

3. (Original) The method of claim 2, wherein selecting a route from the routing information comprises comparing an AEName defined within the network communication to the AEName defined within the routing information.

4. (Currently Amended) The method of claim 1, wherein the network communication complies with the Digital Imaging and Communication in Medicine

(DICOM) protocol, and further wherein comparing at least a portion of the medical imaging data comprises:

parsing the medical imaging data to identify a set of DICOM tags and corresponding data; and

assessing a routing rule from the set of routing rules based on the DICOM tags and corresponding data.

5. (Currently Amended) The method of claim 1, wherein storing a set of routing rules comprises storing an XML-based set of rules, wherein the rules conform to a user-defined grammar for routing the patient~~medical imaging~~ data.

6. (Original) The method of claim 5, further comprising presenting an interface for receiving user input that defines the user-defined grammar.

7. (Currently Amended) A router comprising:

a computer-readable medium storing routing information mapping destinations to routes within a medical imaging network, and storing a set of routing rules; and

a routing module that selects a route from the routing information based on destination information of a network communication and a comparison of ~~medical imaging~~ patient data of the network communication to the set of routing rules.

8. (Currently Amended) The router of claim 7, wherein the routing information maps [[DICOM]] Digital Imaging and Communication in Medicine Application Entity Names (AENames) to routes within the medical imaging network.

9. (Currently Amended) The router of claim 7, wherein the routing module parses the ~~medical imaging~~ patient data to identify a set of Digital Imaging and Communication in Medicine (DICOM) tags and corresponding data, and assesses the routing rules based on the DICOM tags and corresponding data.

10. (Currently Amended) The router of claim 7, wherein the set of rules includes rules defined by the eXtensible Markup Language (XML), and which conform to a user-defined grammar for routing the ~~medical imaging~~ patient data.

11. (Original) The router of claim 10, further comprising a user interface for presenting an interface for receiving user input that defines the user-defined grammar and the rules.

12. (Currently Amended) A computer-readable medium storing data comprising routing information mapping destinations to routes within a medical imaging network, wherein the routing information maps [[DICOM]] Digital Imaging and Communication in Medicine Application Entity Names (AENames) to routes within the medical imaging network.

13. (Currently Amended) The computer-readable medium of claim 12, further storing a set of routing rules, wherein the set of rules includes rules defined by the eXtensible Markup Language (XML), and which conform to a user-defined grammar for routing the ~~medical imaging~~ patient data.

14. (Currently Amended) A computer-readable medium having instructions thereon to cause a programmable processor to:

store routing information mapping destinations to routes within a medical imaging network;

store a set of routing rules;

receive a network communication comprising destination information and ~~medical imaging~~ patient data;

compare at least a portion of the ~~medical imaging~~ patient data to the set of routing rules;

select a route from the routing information based on the destination information of the network communication and a result of the comparison; and

forward the network communication according to the selected route.

15. (Currently Amended) The computer-readable medium of claim 14, wherein the network communication complies with the [[DICOM]] Digital Imaging and Communication in Medicine protocol, and further wherein the instructions cause the processor to store routing information mapping Application Entity Names (AENames) to routes within the medical imaging network.

16. (Original) The computer-readable of claim 15, wherein the instructions cause the processor to compare an AEName defined within the network communication to the AEName defined within the routing information.

17. (Currently Amended) The computer-readable of claim 16, wherein the instructions cause the processor to:

parse the ~~medical imaging~~ patient data to identify a set of Digital Imaging and Communication in Medicine (DICOM) tags and corresponding data; and

assess the routing rules based on the DICOM tags and corresponding data.

18. (Original) A method comprising:

receiving user input defining routing information;

generating a rule in Extensible Markup Language (XML) format based on the routing information;

storing the XML-based rule in a rule set;

receiving a network communication comprising medical imaging data;

assessing the XML-based rule based on at least a portion of the medical imaging data; and

routing the network communication based on the assessment of the XML-based rule.

19. (Original) The method of claim 18, wherein the user input defines a grammar for routing medical images within a medical imaging environment.

20. (Original) The method of claim 18, wherein the user input defines tags including a patient identifier, an imaging modality.

21.-40. (Cancelled)